

Honors Chemistry - States of Matter Problem Set

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1. How does the kinetic energy of particles vary as a function of temperature?
2. How does the strength of a liquid's intermolecular forces affect its viscosity?
3. How is it possible that a pile of snow can slowly shrink even on days when the temperature never rises above the freezing point.
4. How much heat is required to vaporize 34.3 g of liquid ethanol, $\text{C}_2\text{H}_5\text{OH}$, at its boiling point? $\Delta H_{\text{vap}} = 38.6 \text{ kJ/mol}$.
5. What is the final temperature of 1280 g of water originally at 20.0°C , if it absorbs 47.6 kJ of heat?